920476-904776

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of	:	Hudson, John E.
Serial No.	:	09/849,927
Filed	:	May 4, 2001
For	:	Equaliser For Digital Communications Systems and Method of Equalisation
Examiner	:	Pathak, Sudhanshu C.
Art Unit	:	2634
Customer number	:	23644

REPLY BRIEF IN RESPONSE TO EXAMINER'S ANSWER MAILED April 5, 2006

Honorable Director of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

Applicant makes the following observations in response to the Examiner's Answer mailed April 5, 2005.

REPLY BRIEF

The Examiner's primary ground of rejection of the present application is the rejection of claims 1, 2, 4, 6 to 14, 15, 16, 19 to 21, 23 to 27 and 29 under 35 U.S.C. §103(a) as being unpatentable over the Applicant Admitted Prior Art (AAPA) (application specification, pages 2 to 4) in view of US Patent Number 4058713 to DiToro.

It is the Examiner's position that AAPA teaches many but not all of the features of the present invention as defined by claim 1, for example, but that those features not taught by AAPA are disclosed in DiToro and that it would have been obvious to one of ordinary skill in the art to implement the equalization process taught by DiToro in the receiver taught by AAPA to minimize the computational complexity of the equalization process. Applicant refers here to pages 3 to 5, section "(9) Grounds of Rejection", of the Examiner's Answer which sets out in detail the Examiner's primary ground of rejection.

The Examiner accepts that AAPA teaches implementing downlink transmit diversity antennas to address fading and coloring of a channel through the use of space-time transmit diversity for non-dispersive channels (emphasis added) - page 3, line 10 of section "(9) Grounds of Rejection" of the Examiner's Answer and page 2, line 33 of applicant's specification.

At page 18, lines 10 to 28 of applicant's specification, it is discussed that "*if the channel is non-dispersive, then the correlation between the sequence spectrum S_k 262 and the channel sequence spectrum Y_k 254 yields a null result for the CIR and no correction is applied by MMSE spectral ratio comparator 290*". In other words, the improved equalization process of the present invention and by analogy that taught by DiToro results in no correction, i.e. no equalization, for a non-dispersive channel in a receiver as taught by AAPA. Therefore, a skilled person would not seriously contemplate modifying the receiver taught by AAPA by introducing the

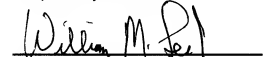
equalization process taught by DiToro since it would result in a null effect and, far from reducing the computational complexity of the equalization process, would implement in the receiver of AAPA a process and thus computational complexity having no net effect and thus no benefit. It follows also from the foregoing that there could be no reasonable expectation of success from the combination of AAPA and DiToro.

The Examiner has mentioned that claim 1, for example, of the present application is not limited to dispersive channels. Applicant submits that this limitation is inherently implicit from the claim language when the claims are considered in context. Thus, although such a limitation could be introduced into the claims, such is not believed to be needed.

Reversal of the Examiner is therefore clearly in order and is solicited.

June 5, 2006

Respectfully submitted,



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